AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of fabricating a steel part by forging, the method comprising the steps of:

- preparing and casting a steel having the following composition in percentages by weight: $0.06\% \leq C \leq 0.35\%$; $0.5\% \leq Mn \leq 2\%$; traces $\leq Si \leq 2\%$; traces $\leq Ni \leq 1.5\%$; traces $\leq Al \leq 0.1\%$; traces $\leq Cr \leq 1.5\%$; traces $\leq Mo \leq 0.30\%$; traces $\leq V \leq 0.5\%$; traces $\leq Cu \leq 1.5\%$; 5 ppm$\leq B \leq$ 50 ppm; $0.005\% \leq Ti \leq 0.04\%$ where Ti $\geq$ 3.5 times the N content of the steel; $0.005\% \leq Nb \leq 0.06\%$; the remainder being iron and impurities that result from preparation;
- forging a blank for the part at a temperature in the range 1100° C to 1300° C;
- cooling the blank for the part in a controlled manner in still or forced air at a speed less than or equal to 3° C/s in the range 600° C to 300° C, thereby imparting a bainite microstructure to the blank;
- machining the part; and
- performing a mechanical reinforcing operation on the part at locations that are to be subjected to particularly high levels of stress.

2-5. (Cancelled)

6. (Original) A method according to claim 1, wherein the steel contains 0.005% to 0.2% of S.

7. (Original) A method according to claim 6, wherein the steel contains at least one of the following elements: Ca up to 0.007%; Te up to 0.03%; Se up to 0.05%; Bi up to 0.015%; and Pb up to 0.15%.

8. (Original) A method according to claim 1, wherein the C content of the steel lies in the range 0.06% to 0.20%.

9. (Original) A method according to claim 8, wherein the Mn content of the steel lies in the range 0.5% to 1.5%, and wherein the Cr content lies in the range 0.05% to 1.5%.

10. (Original) A method according to claim 8, wherein the Cu content of the steel lies in the range 0.5% to 1.5%.

11. (Currently amended) A method according to claim 1, wherein the C content of the steel lies in the range 0.25% to 0.35%, the Si content lies in the range traces to 0.5%, the Mn content lies in the range 0.8% to 2%, the Cr content lies in the range 0.5% to 1.5%, and the Mo content lies in the range 0.05% to 0.20%~~, and wherein the steel contains 5 ppm to 50 ppm of B, and 0.005% to 0.04% of Ti~~.

12. (Currently amended) A method according to claim 1, wherein the C content of the steel lies in the range 0.20% to 0.35%, the Si content lies in the range 0.5% to 2%, the Mn content lies in the range 0.8% to 2%, the Cr content lies in the range 0.5% to 1.5%, and the Mo content lies in the range 0.05% to 0.20%~~, and wherein the steel contains traces to 50 ppm of B, and 0.005% to 0.04% of Ti~~.

13. (Original) A method according to claim 12, wherein annealing is performed in the range 300° C to 500° C for a period of 1 h to 3 h after machining or after controlled cooling in air and prior to machining.

14. (Currently amended) A method according to claim 1, wherein the mechanical reinforcing operation is ~~burnishing~~deep rolling.

15. (Original) A steel forging, obtained by the method according to claim 1.

16. (Original) A steel forging according to claim 15, constituting a crank shaft for an IC engine.

17. (Original) A steel forging according to claim 16, wherein the mechanical reinforcing operation is performed on the fillets connecting the crank pins and the bearings of the crank shaft.

18. (Cancelled)